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Pathology Test Change Notification

New Gastrointestinal Pathogen Panel

Effective Date: 6/14/2023

Test Change Notification Date: 6/13/2023

Notification sent by: Randall Hayden, MD

Groups Notified: All Clinical Providers, Pathology, Nursing Services, Epic Applications Managers, Epic Beaker Team

Details of Change

Effective June 14, 2023, the Gastrointestinal Pathogen Panel will be orderable for diagnostic workup of stool samples for gastroenteritis. This panel will replace orders in all order sets for the following orders:

- Culture Stool Enteric
- Culture *Yersinia*
- Rotavirus and Norovirus PCR
- Cryptosporidium*/*Giardia* Antigen Panel

Testing for other pathogens including C. difficile PCR, Ova & Parasite Exam, and Adenovirus PCR Stool (all subtypes) will continue to be available as separate tests.

The panel detects the following organisms:

Bacteria:

By PCR— *Campylobacter* spp. (*C. jejuni*, *C. coli*, *C. upsaliensis*), *Plesiomonas shigelloides*, *Salmonella* spp., *Vibrio* spp. (*V. parahaemolyticus*, *V. vulnificus*, *V. cholerae*) including specific identification of *V. cholerae*, *Yersinia enterocolitica*, Enteroaggregative *Escherichia coli* (EAEC), Enteropathogenic *Escherichia coli* (EPEC), Enterotoxigenic *Escherichia coli* (ETEC) *lt/st*, Shiga-like toxin-producing *Escherichia coli* (STEC) *stx1/stx2* including specific identification of *E.coli* O157, *Shigella*/Enteroinvasive *Escherichia coli* (EIEC)

By culture— *Aeromonas* spp.

If *Campylobacter*, *Salmonella*, or *Shigella* spp. are detected by PCR, reflexive culture for the detected bacteria will additionally be performed. Antibiotic susceptibility testing will be performed if the organism is isolated in culture.

Parasites - *Cryptosporidium* spp., *Cyclospora cayetanensis*, *Entamoeba histolytica*, *Giardia lamblia* (also known as *G. intestinalis* and *G. duodenalis*)

Viruses - adenovirus F40/41, astrovirus, norovirus GI/GII, rotavirus A, and sapovirus (genogroups I, II, IV, and V).

Turnaround Time: The PCR test will have a turnaround time of 4-6 hours if received by lab between 7am and 9pm. Cultures for *Aeromonas* spp. and enteric bacteria (when reflexed) will have a turnaround time of 1 and 3 days, respectively.

Note: PCR is more sensitive than stool culture and can identify low numbers of pathogens. The results of PCR testing for stool pathogens should be interpreted in clinical context when making treatment decisions. PCR testing can also identify nucleic acid from non-viable organisms, so the test should not be used as a test of cure and should not be re-ordered within 7 days.

Screen shots below show ordering and results appearance in Epic:

Specimen Collection of New Order Within Gastrointestinal Pathogen Panel:

Specimen Collection

Collection Sequence

Sterile Container

Gastrointestinal PCR Panel

Stool Specimens

Sterile Container (Per Rectum)

Collection Instructions:

5 mL of stool in Sterile Container

Transport Instructions:

Transport to lab immediately on ice. Must be received in lab within one hour.

Gastrointestinal PCR Panel

Scheduled: 6/9/2023 1504

Results Review:

GASTROINTESTINAL	
Campylobacter (C. jejuni/C. coli/ C....	Detected ! 📄
Plesiomonas shigelloides PCR	Not Detected
Salmonella PCR	Not Detected 📄
Vibrio (V. parahaemolyticus/V. vul...	Not Detected 📄
Vibrio cholerae PCR	Not Detected
Yersinia enterocolitica PCR	Not Detected 📄
Enteraggregative E. coli (EAEC) ...	Not Detected
Enteropathogenic E. coli (EPEC) P...	Not Detected 📄
Enterotoxigenic E. coli (ETEC) PCR	Not Detected 📄
Shiga-like toxin-producing E. coli (...)	Not Detected 📄
E. coli O157 PCR	Not Detected
Shigella/Enteroinvasive E. coli (El...	Not Detected 📄
Adenovirus F 40/41 PCR	Not Detected
Astrovirus PCR	Not Detected
Norovirus GI/GII PCR	Not Detected 📄
Rotavirus A PCR	Not Detected 📄
Sapovirus (Genogroups I, II, IV, an...	Not Detected
Cryptosporidium PCR	Not Detected
Cyclospora cayetanensis PCR	Not Detected
Entamoeba histolytica PCR	Not Detected 📄
Giardia lamblia PCR	Not Detected 📄
CULTURE AEROMONAS	👤
CULTURE ENTERIC BACTERIA RE...	! 📄

Note: Hover over the icon in the cell for the culture to display result details. To view susceptibility results, click the order name Culture Enteric Bacteria Reflex.

Astrovirus PCR	
Norovirus GI/GII P	
Rotavirus A PCR	
Sapovirus (Genog	
Cryptosporidium P	
Cyclospora cayeta	
Entamoeba histoly	
Giardia lamblia PCR	Not L...ted
CULTURE AEROMONAS	
CULTURE ENTERIC BACTERIA RE...	

Culture Aeromonas

Collected: 06/07/23 14:31 | Stool from Per Rectum
Updated: 06/07/23 16:06 | Final result

Resulting Lab: PATHOLOGY LAB (BEAKER)

Culture Aeromonas No Aeromonas isolated

Astrovirus PCR	
Norovirus GI/GII	
Rotavirus A PCR	
Sapovirus (Geno	
Cryptosporidium	
Cyclospora caye	
Entamoeba histo	
Giardia lamblia P	
CULTURE AEROMONAS	
CULTURE ENTERIC BACTE...	

🚫 Culture Enteric Bacteria Reflex

Collected: 06/07/23 14:31 | Stool from Per Rectum
Updated: 06/07/23 16:07 | Final result

Resulting Lab: PATHOLOGY LAB (BEAKER)

Culture Enteric Bacteria Reflex **Campylobacter jejuni !**

Contact Information

Contact Clinical Microbiology Service for more information.